



AC TORQUE SERVOMOTORS – DAF/DAP.9

Size 9 brushless servomotors **DAF/DAP.9 - size NINE** are AC induction motors. They have been designed using latest generation materials to provide a low cost solution with very high performance and low torque ripple. Typically employed where high torque at low speed and a constant power wide operating range are required. Hollow shaft allows direct coupling with recirculating ball screws for DIRECT DRIVE applications with high stiffness and dynamic

Their main characteristics are:

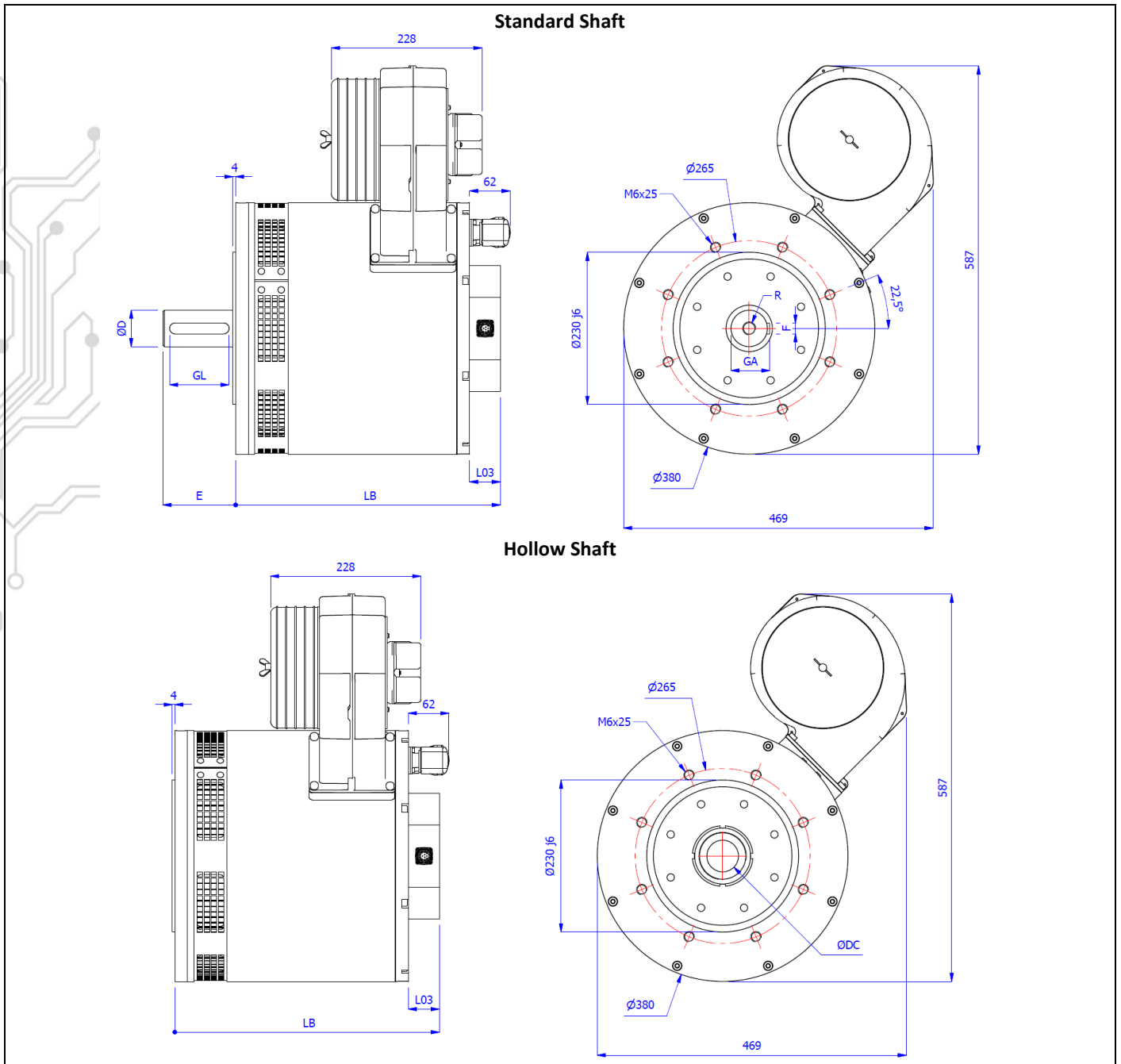
- 8 poles construction
- Integrated PTC/PT1000 thermal protection
- Rotable design
- Compact design
- Smooth finish
- Very low noise pollution



Tab. 1

Technical Data

Description Winding code	Symbol	Motor	DAF/DAP				Only DAP	
		Units	91.1	91.2	92.1	92.2	93.1	93.2
Rated Torque	M_n	Nm	250		430		630	
Rated Torque S6 40%	$M_{n\ S6}$	Nm	300		540		760	
Rated Voltage	U_n	V_{rms}	380					
Rated Current	I_n	A_{rms}	19	26	33	44	45	33
Rated Current S6 40%	$I_{n\ S6}$	A_{rms}	23	31	40	53	54	40
Rated Speed	N_n	min^{-1}	310	457	344	471	300	200
Rated Frequency	F_n	Hz	23,3	33,3	25	33,3	21,8	15
Rated Power	P_n	kW	8,2	12	15,5	21	20	13,2
Maximum Torque	M_{pk}	Nm	900		1400		2200	
M_{pk} Maximum Speed	N_{pk}	rpm	100	200	200	300	150	80
Maximum Current	I_{max}	A_{rms}	60	80	90	120	120	90
Maximum mechanical Speed	N_{mec}	rpm	3000		2500		1800	
Maximum speed at 400 V_{rms}	N_{max}	rpm	1000	1000	900	900	600	600
Rotor Inertia	J_r	$kg\ cm^2$	2740		5340		7730	
Weight	m	kg	114		187		270	



Dimensions in mm

Tab. 2

Feedback	Resolver		Encoder TTL	
Dimensions	LB	L03	LB	L03
DAF.91	291	47	300	56
DAF.92	401		410	
DAF.93	554		563	
DAF.91 BRAKE	352	108	361	117
DAF.92 BRAKE	462		471	
DAF.93 BRAKE	615		624	

Tab.3

TG9	Shaft			
D	55k6	-	-	-
DC	-	48H7	60H7	73H7
E	110	-	-	-
GL	90	-	-	-
GA	59	-	-	-
F	16	-	-	-
R	M20x30	-	-	-

Information

Bold data refers to standard version dimensions.

Values in this catalogue are true for the following conditions:

- Max ambient temperature 40° C
- Min ambient temperature 0 °C
- Max Altitude 1000 m (above sea level)
- Insulation class F (materials F & H)
- RMS values
- Insulation system in compliance with UL
- IP23 enclosure protection
- Motor Installation B5 – V5
- Forced cooling
- Typical tolerance value ±10%
- Maximum temperature rise 100K
- Aluminum flange test dimensions 457x457x15

Sangalli reserves the right to amend the specification of this product without prior notification

NOMENCLATURE BREAKDOWN

1	2	3	4	5	6	7	8	9	10	11
D	A	M	9	1	1	0	9	9	x	x

POS.	DESCRIPTION
3	<p>Cooling system</p> <p>M= natural ventilation F= forced ventilation by radial coupled fan G2E146-DW07-10 (140 W) P= forced ventilation by remote fan MAP160 or MAP200 W= water cooled</p>
4	<p>Motor size</p> <p>Size Nine</p>
5	<p>Motor length</p>
6	<p>Voltage</p> <p>1= winding code 1 2= winding code 2</p>
7	<p>Holding brake</p> <p>0= no brake 2= spring brake $24V_{DC} \pm 6\%$, $M_{br}=46Nm$ $P_{br}=40W$ $m=4,5kg$ $J_{br}=27,2kg\ cm$</p>
8	<p>Feedback</p> <p>0= Sensorless 9= Resolver size 21 7V 10kHz 4= Encoder DBS60 2048 TTL</p>
9	<p>Connection type</p> <p>9= Connector M40 when motor current > 20A, feedback M23, rotatable 90°</p>
10-11	<p>Special version</p> <p>26 = Smooth shaft 70 = Hollow shaft D=48 H7 E4 = Hollow shaft D=60 H7 90 = PT1000 Thermal protection XX = Special Shaft and Flange (on request)</p>

SANGALLI SERVOMOTORI



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MOTORS & MOTION CONTROL

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